Project	Improvement to Roads and Drains in Bhadrappa Layout and Surrounding area in Ward No.08
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. Sreenivas Constructions

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material		BC		Proposed Use	BC
Sample Location		At plant		Date of Sampling	03-12-19
				Date of Testing	03-12-19
Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	962	78	950	65
16.0	12.5	1300	115	1250	120
12.5	10.0	510	72	450	55
10.0	6.3	490	62	430	70
Total		**3262**	**327**	**3080**	**310**

Note: Minimum 200 Pcs should be taken on each fraction of test

		Flakiness Index(%):	10.02		
		Elongation Index(%):	10.06		
		Combined FI+EL (%)	20.09		

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Name of Work	:	Improvement to Roads and Drains in Bhadrappa Layout and Surrounding area in Ward No.08
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Sreenivas Constructions
Date of Testing	:	03-12-19
Type of Mix	:	BC
Sample I/D	:	BC2

GRADATION FOR BC
(As per MORT&H 500-18,Grading-2)

Sample Location:	At plant		Date of Sampling:	03-12-19
			Date of testing:	03-12-19
Type of material & Purpose:	BC		Oven Dry Wt.(gms):	1200.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19	0	0	0.00	100.00	100.00
13.20	95	95.0	7.92	92.08	79 - 100
9.50	120	215.0	17.92	82.08	71 - 95
4.75	235	450.0	37.50	62.50	53 - 71
2.360	180	630.0	52.50	47.50	42 - 58
1.180	98	728.0	60.67	39.33	34 - 48
0.600	110	838.0	69.83	30.17	26 - 38
0.300	85	923.0	76.92	23.08	18 - 28
0.150	60	983.0	81.92	18.08	12 - 20
0.075	110	1093.0	91.08	8.92	4 - 10
Pan	107.0				
Total	1200.0				

Consultants Representative

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BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Improvement to Roads and Drains in Bhadrappa Layout and Surrounding area in Ward No.08
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Sreenivas Constructions
Date of Testing	:	03-12-19
Type of Mix	:	BC
Sample I/D	:	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	930	910
2. Weight of Mixture after extraction, g	878	859
3. Weight of Bitumen	52	51
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	54.10	52.85
8. Bitumen content in %	5.82	5.81
9. Average Bitumen content in %	**5.81**	
10. Minimum Bitumen content in %	**5.80**	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	At site	Date of Sampling:	03-12-19
		Date of testing:	03-12-19
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	878.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	85	85.0	9.68	90.32	79 - 100
9.50	120	205.0	23.35	76.65	71 - 95
4.75	86	291.0	33.14	66.86	53 - 71
2.360	140	431.0	49.09	50.91	42 - 58
1.180	120	551.0	62.76	37.24	34 - 48
0.600	75	626.0	71.30	28.70	26 - 38
0.300	66	692.0	78.82	21.18	18 - 28
0.150	42	734.0	83.60	16.40	12 - 20
0.075	69	803.0	91.46	8.54	4 - 10
Pan	75.0				
Total	878.0				

29/2/2020

Consultant's Representative

Name of Work	:	Improvement to Roads and Drains in Bhadrappa Layout and Surrounding area in Ward No.08
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Sreenivas Constructions.
Date of Testing	:	03-12-19
Type of Mix	:	Tack coat
Sample I/D	:	1

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	**Unit**	**Test No**	
		1	**2**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.823	0.865
Final weight of plate after application of tack Coat (c)	Kg	0.846	0.888
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.256	0.256
Average	Kg/sq.m	0.256	
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**	

Consultant's Representative

TEJUS CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work	:	Improvement to Roads and Drains in Bhadrappa Layout and Surrounding area in Ward No.08
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Sreenivas Constructions
Date of Testing	:	04-12-19
Type of Mix	:	BC
Sample I/D	:	BC2

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	910	925
2. Weight of Mixture after extraction, g	859	873
3. Weight of Bitumen	51	52
4. Weight of filter paper before extraction, g	2.00	2.15
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	2.10	1.85
7. Weight of Bitumen & fines	53.10	53.85
8. Bitumen content in %	5.84	5.82
9. Average Bitumen content in %	**5.83**	
10. Minimum Bitumen content in %	**5.80**	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	At site	Date of Sampling:	04-12-19	
		Date of testing:	04-12-19	
Type of material & Purpose:	BC	Oven Dry Wt.(gms):	859.0	

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	85	85.0	9.90	90.10	79 - 100
9.50	130	215.0	25.03	74.97	71 - 95
4.75	90	305.0	35.51	64.49	53 - 71
2.360	135	440.0	51.22	48.78	42 - 58
1.180	98	538.0	62.63	37.37	34 - 48
0.600	65	603.0	70.20	29.80	26 - 38
0.300	40	643.0	74.85	25.15	18 - 28
0.150	82	725.0	84.40	15.60	12 - 20
0.075	82	807.0	93.95	6.05	4 - 10
Pan	52.0				
Total	859.0				

Consultant's Representative

Name of Work	:	Improvement to Roads and Drains in Bhadrappa Layout and Surrounding area in Ward No.08
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	Sri. Sreenivas Constructions.
Date of Testing	:	04-12-19
Type of Mix	:	Tack coat
Sample I/D	:	1

DETERMINATION OF RATE OF SPREAD TACK COAT

Determination	**Unit**	**Test No**	
		1	**2**
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.794	0.784
Final weight of plate after application of tack Coat (c)	Kg	0.817	0.807
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.256	0.256
Average	Kg/sq.m	0.256	
Specified Limit	Kg/sq.m	**0.250 Kg/sq.m**	

Consultant's Representative